**Historic, archived document**

Do not assume content reflects current scientific knowledge, policies, or practices.

SHOUT
SHARE
IT

# PINK BOLLWORM

Picture Sheet No. 21

(See other side for life history and control)

*A*, Cotton bloom rosetted by feeding of the pink bollworm. *B*, Green cotton with the boll sectioned: *a*, Eggs laid inside the calyx of cotton boll; *b*, entrance hole made by newly hatched larva (invisible to naked eye); *c*, larvae in cotton seed; *d*, hole in partition made by a larva traveling from one lock to another; *e*, exit holes of larvae. *C*, Mature larva. *D*, Pupa. *E*, Adult. *F*, Damaged open boll. *A*, *B*, *F*, twice actual size; *D*, and *E*, 3½ times actual size; *C*, 5 times actual size.

Bureau of Entomology and Plant Quarantine, Agricultural Research Administration, U. S. Department of Agriculture

LIBRARY
RECEIVED
JUN 4 1948
U.S. DEPARTMENT OF AGRICULTURE

Picture Sheet No. 21

# THE PINK BOLLWORM

(*Pectinophora gossypiella* Saunders)

## Injury and Life History

The pink bollworm is the most serious pest of cotton in many parts of the world, including India, China, Egypt, Brazil, and Argentina. It occurs in the principal cotton-growing areas of Mexico, except near the west coast and in Lower California. The pink bollworm was first discovered in the United States near Hearne, Tex., in September 1917. It is now present in only 5 of the 19 cotton-growing States—Arizona, New Mexico, Texas, Oklahoma, and Florida. Infestations in Louisiana and Georgia have been eradicated. Were it not for the persistent and effective fight conducted during the past 30 years by the United States Department of Agriculture and the States in which this insect has made its appearance it would now be in all the cotton-growing areas.

The small pinkish caterpillars eat out the seeds of the cotton plant and thus reduce the yield, weight, vitality, and oil content of the seeds. They also reduce the quantity and quality of the lint. Severe infestations cause squares and small bolls to shed. The female lays from 100 to 200 eggs, which are scarcely visible to the naked eye. The young caterpillar bores into a square or boll, where it feeds for 10 to 14 days. When full grown, it cuts a round hole through the boll and either changes to a pupa within the boll or drops to the ground to pupate. Development from egg to adult requires 25 to 30 days in midsummer. There may be as many as 4 to 6 generations a year where long growing seasons occur. Larvae that develop late in the season may pass the winter in seed, old bolls, trash in the fields or at the gins, and in cracks in the soil.

## Control

A strict quarantine is maintained on those areas in which the pink bollworm occurs, to regulate the movement of products likely to carry the pest to other cotton-growing districts. The most successful method of combating an outbreak of the pink bollworm in an area not highly susceptible to constant reinfestation from old infested areas is elimination of cotton production for 1 to 3 years. An important method of control is a combination of cultural practices designed to shorten the breeding season for the insect and to reduce carry-over of larvae from one season to the next. It consists in planting quick-maturing types of cotton within a short period as early in the year as possible, early destruction of cotton stalks to create a host-free condition, destruction of stub or volunteer plants before they fruit, and deep plowing to cover overwintering larvae and thus prevent moths from emerging. Cutting and piling of stalks and shattered debris, followed by burning of the entire mass, will also destroy many overwintering larvae. Heavy winter irrigations are helpful where possible. Treating of cottonseed to destroy any pink bollworms present, together with sanitary measures such as burning of gin trash at the gins, is essential. DDT shows promise as a supplement to other control measures.

Any insect resembling the pink bollworm which is found in areas thought to be free of this insect should be placed in a bottle of diluted alcohol and sent to the Bureau of Entomology and Plant Quarantine, Washington 25, D. C., with full information as to date and place of collection and by whom.

April 1948 U. S. Government Printing Office

For sale by the Superintendent of Documents, Washington 25, D. C. - - - - - - Price 5 cents

☆ U. S. GOVERNMENT PRINTING OFFICE 16—54643-1